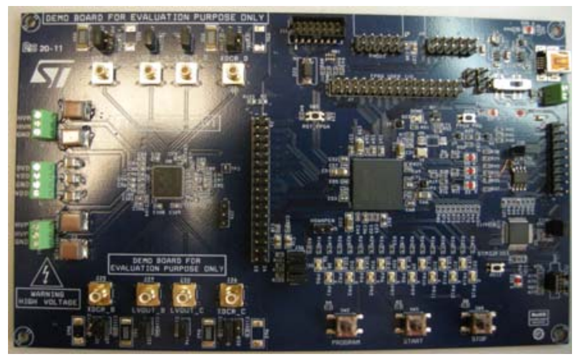
STEVAL-IME003V1

STEVAL-IME003V1 demonstration board based on the STHV748 high voltage pulser

Data brief

Features

- 4-channel outputs: high voltage and low voltage BNC connectors
- Load simulator using signal equivalent circuits
- Possibility to set up own load simulator
- 16 preset waveforms
- USB connector to connect STM32 with PC and supply power to it
- 4 MB serial Flash memory to host FPGA code and waveforms
- Memory expansion connector to add external serial Flash
- Connectors to supply high voltage and low voltage to the STHV748 output stage
- LEDs to monitor the power management stage
- Human machine interface to select, start and stop the generation of the preset waveforms
- 25 LEDs to monitor board behavior
- RoHS compliant



STEVAL-IME003V1

Description

The STEVAL-IME003V1 demonstration board is designed around the STHV748 4-channel high voltage pulser, a state-of-the-art device designed for ultrasound imaging applications.

The output waveforms can be displayed directly on an oscilloscope by connecting the scope probe to the relative BNCs. 16 preset waveforms are available to test the HV pulser under varying conditions.

1 Schematic diagrams

Figure 1. STEVAL-IME003V1 hierarchical blocks

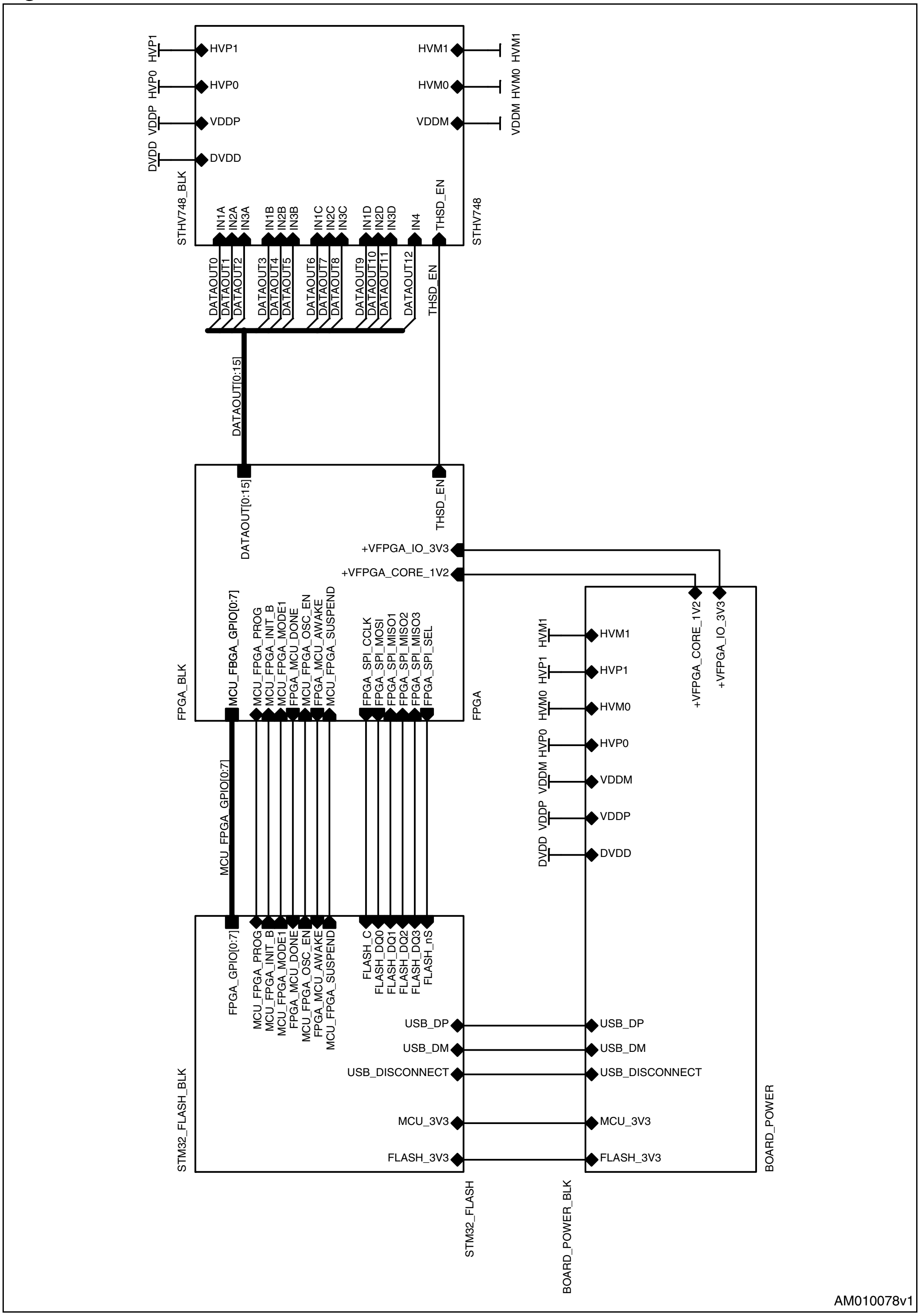


Figure 2. STEVAL-IME003V1 FPGA bank 0 configuration

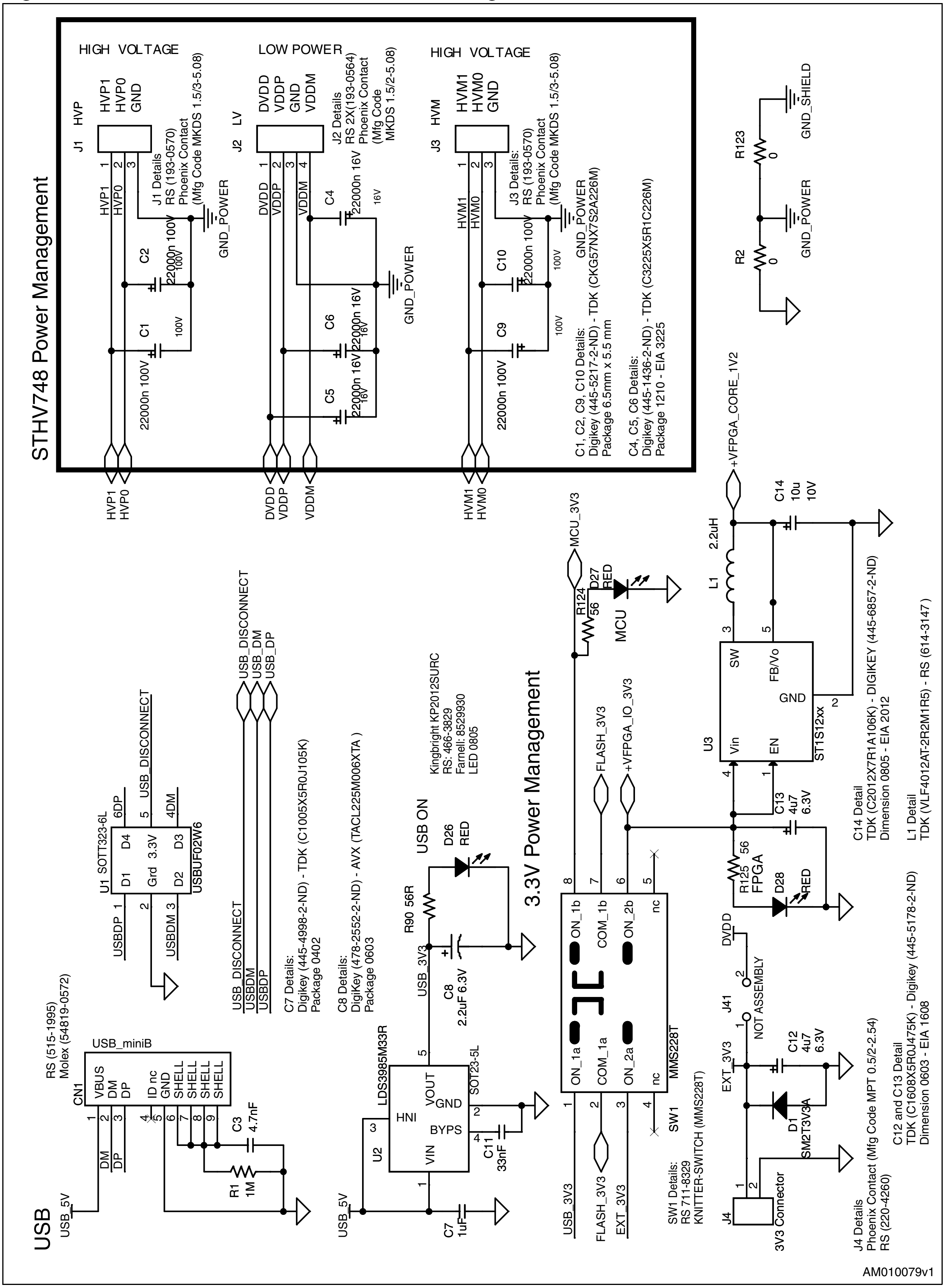


Figure 3. STEVAL-IME003V1 FPGA bank 1 configuration

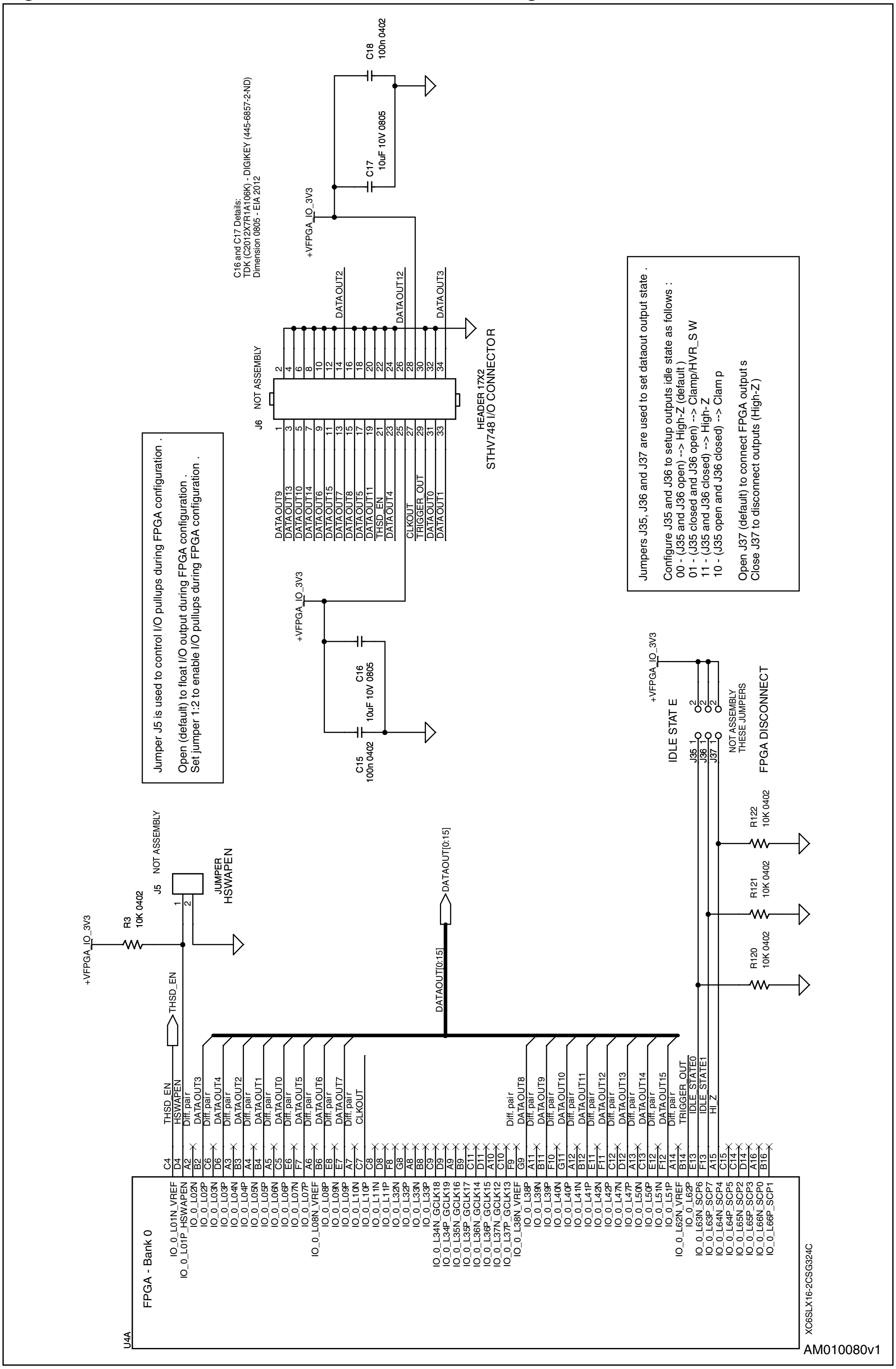


Figure 4. STEVAL-IME003V1 FPGA bank 2 configuration

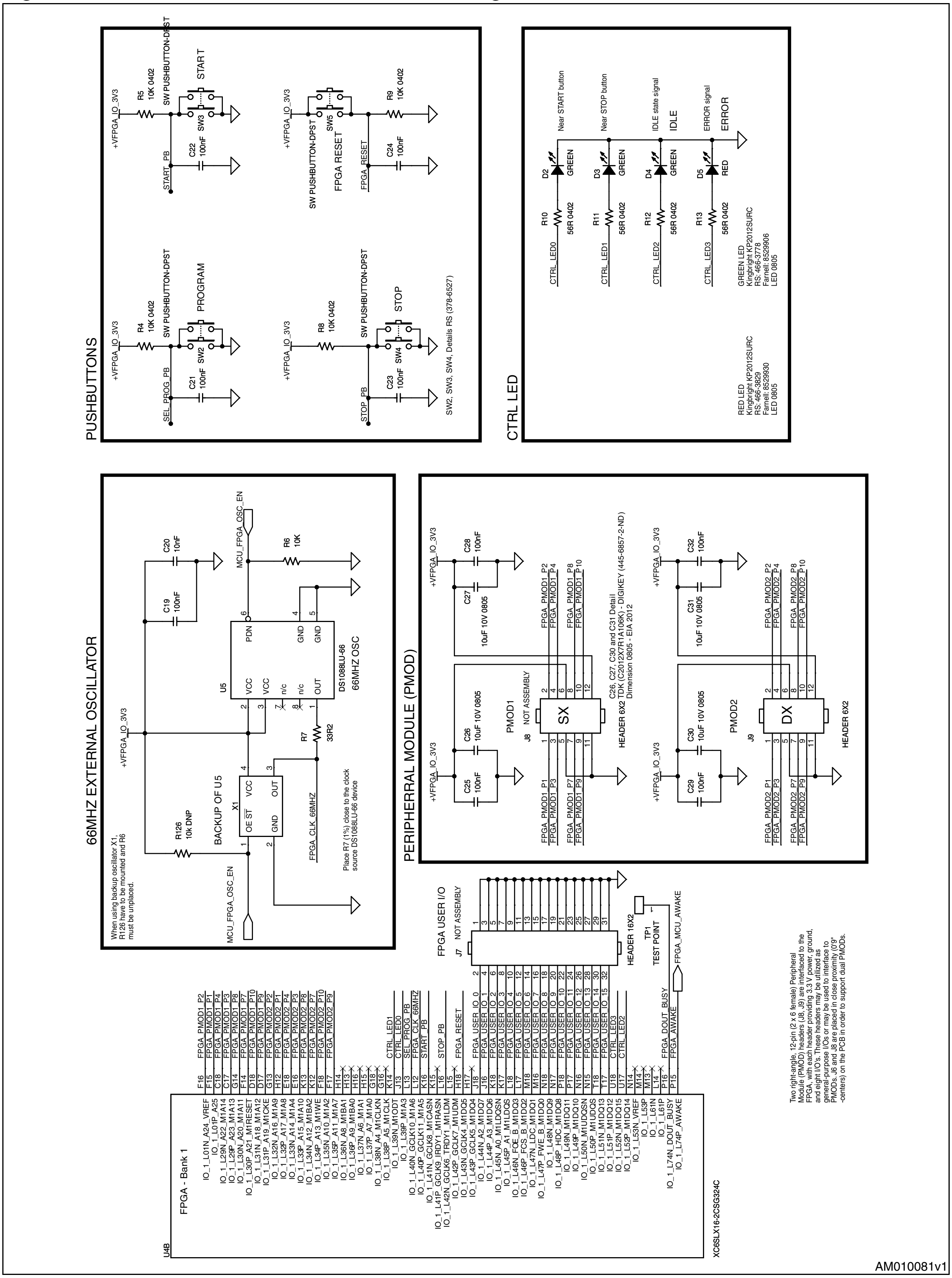


Figure 5. STEVAL-IME003V1 FPGA bank 3 configuration

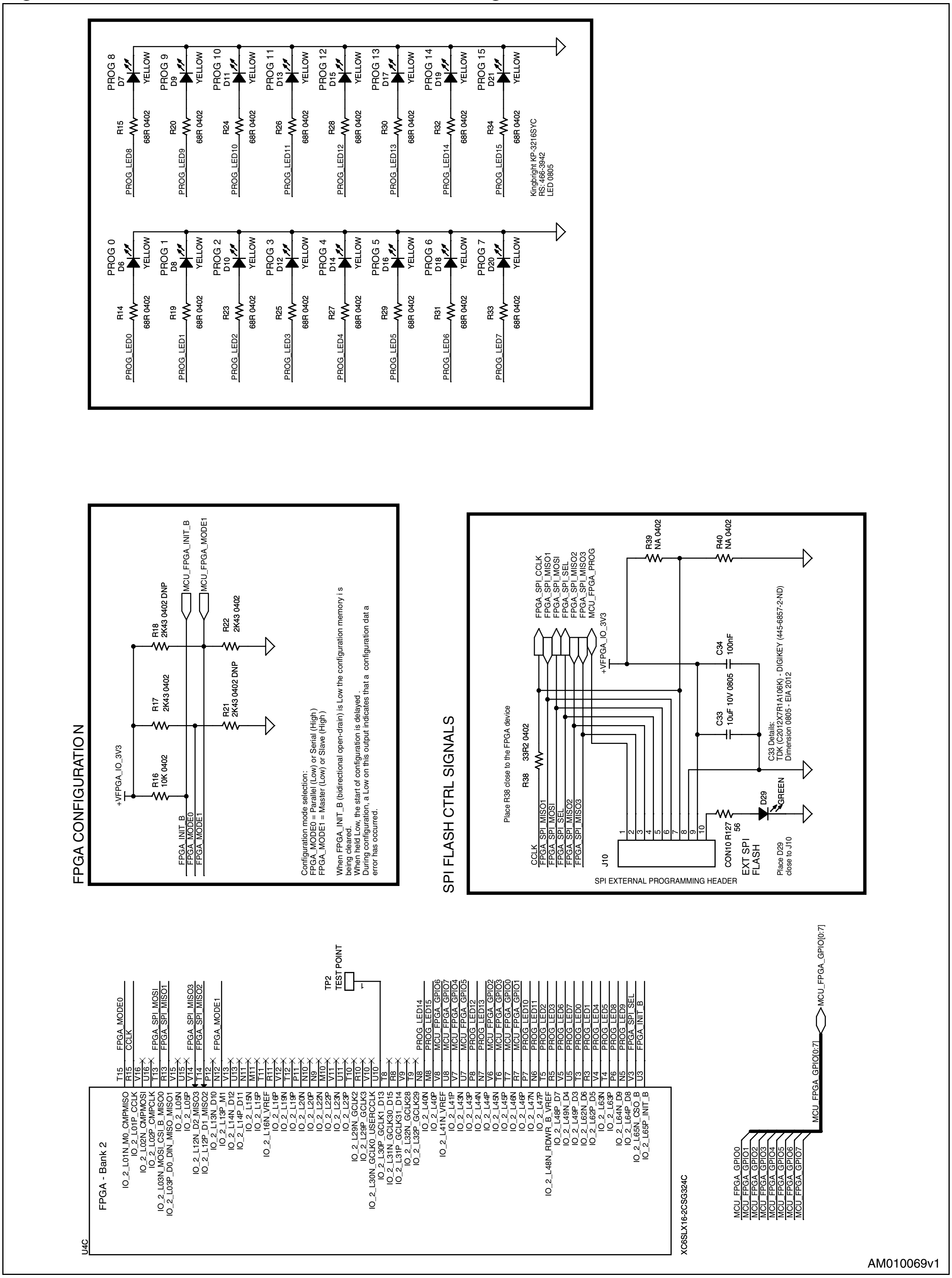


Figure 6. STEVAL-IME003V1 FPGA bank 3 configuration

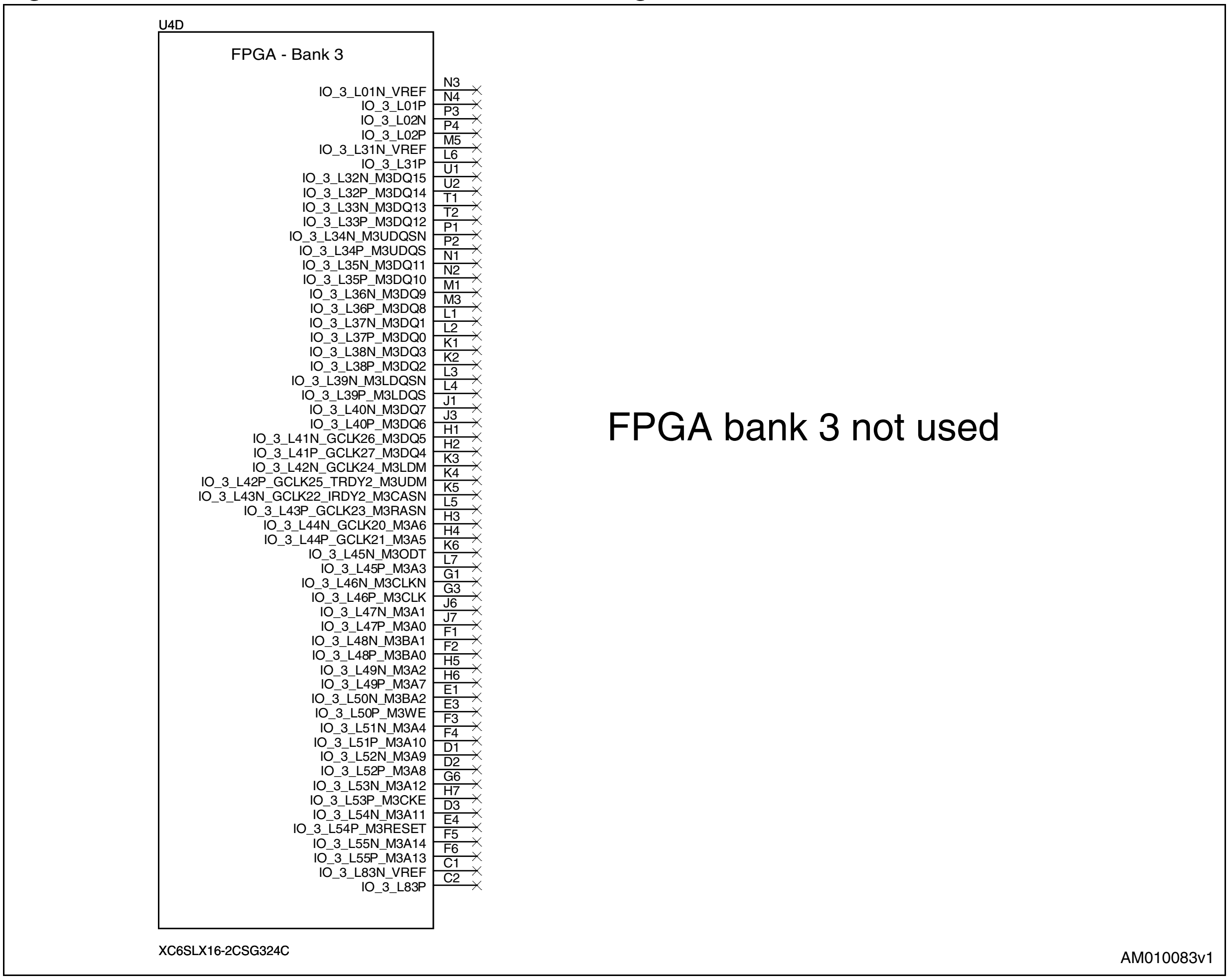


Figure 7. STEVAL-IME003V1 FPGA power and configuration

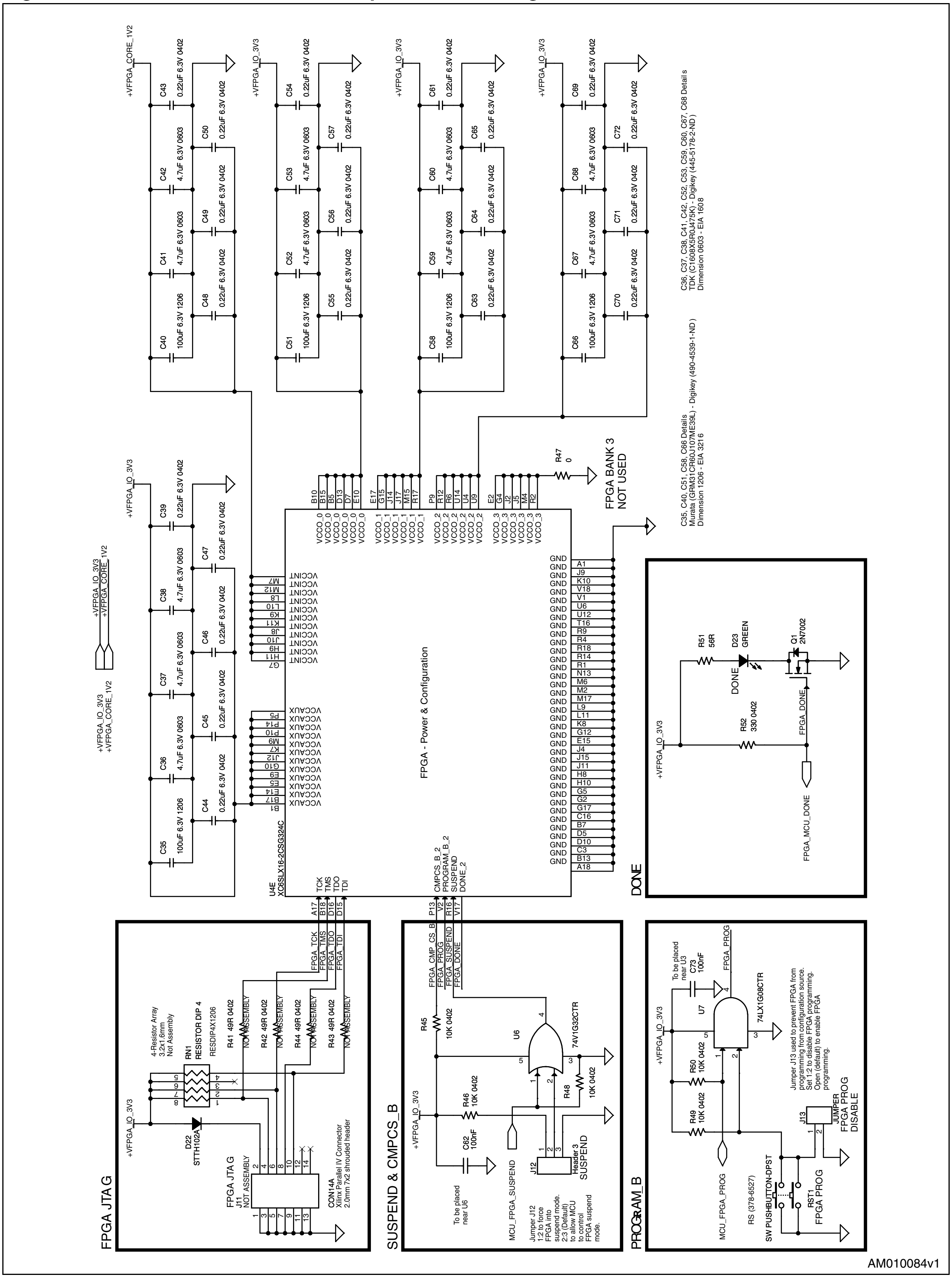


Figure 8. STEVAL-IME003V1 configuration of the STHV748

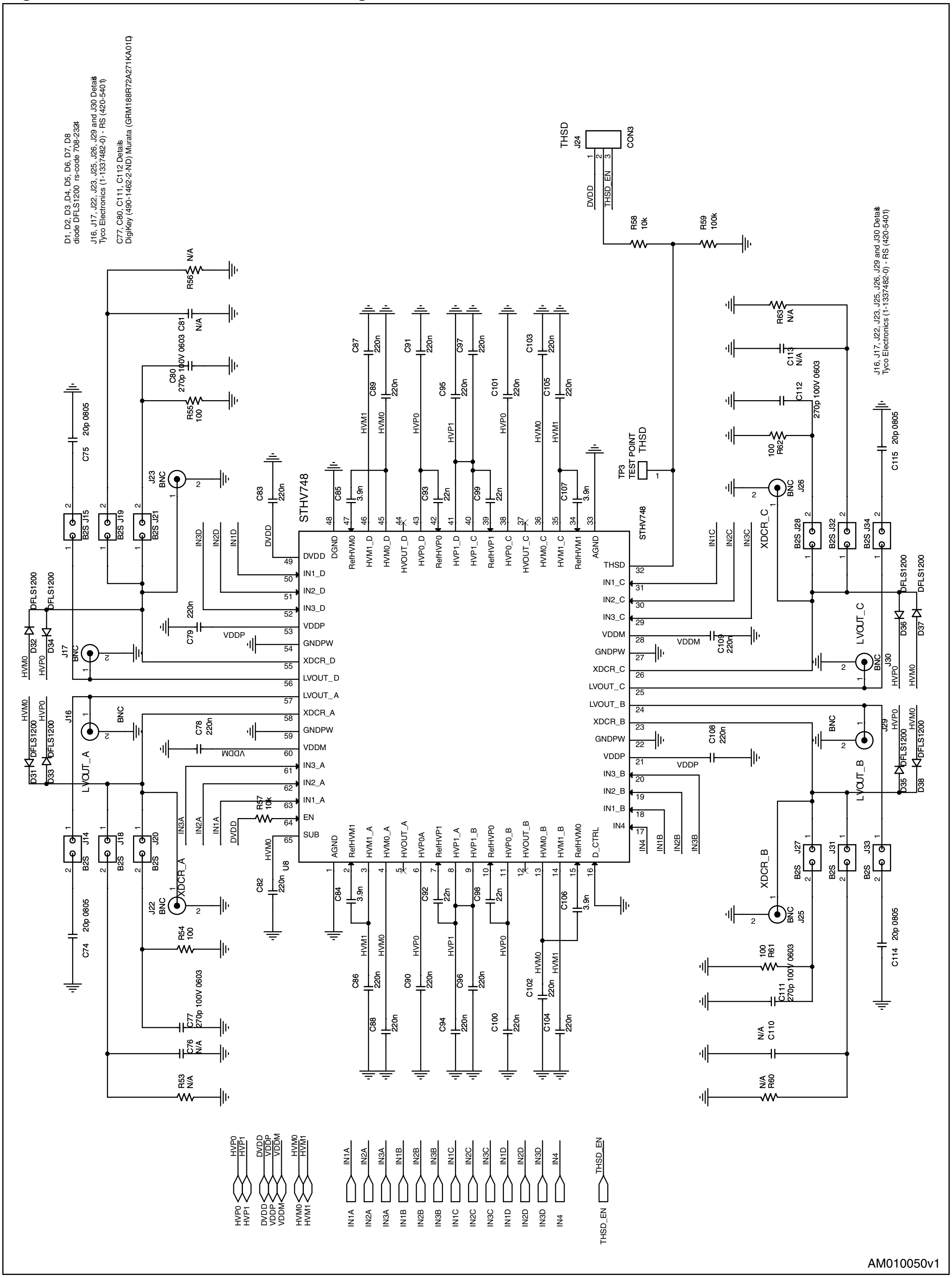
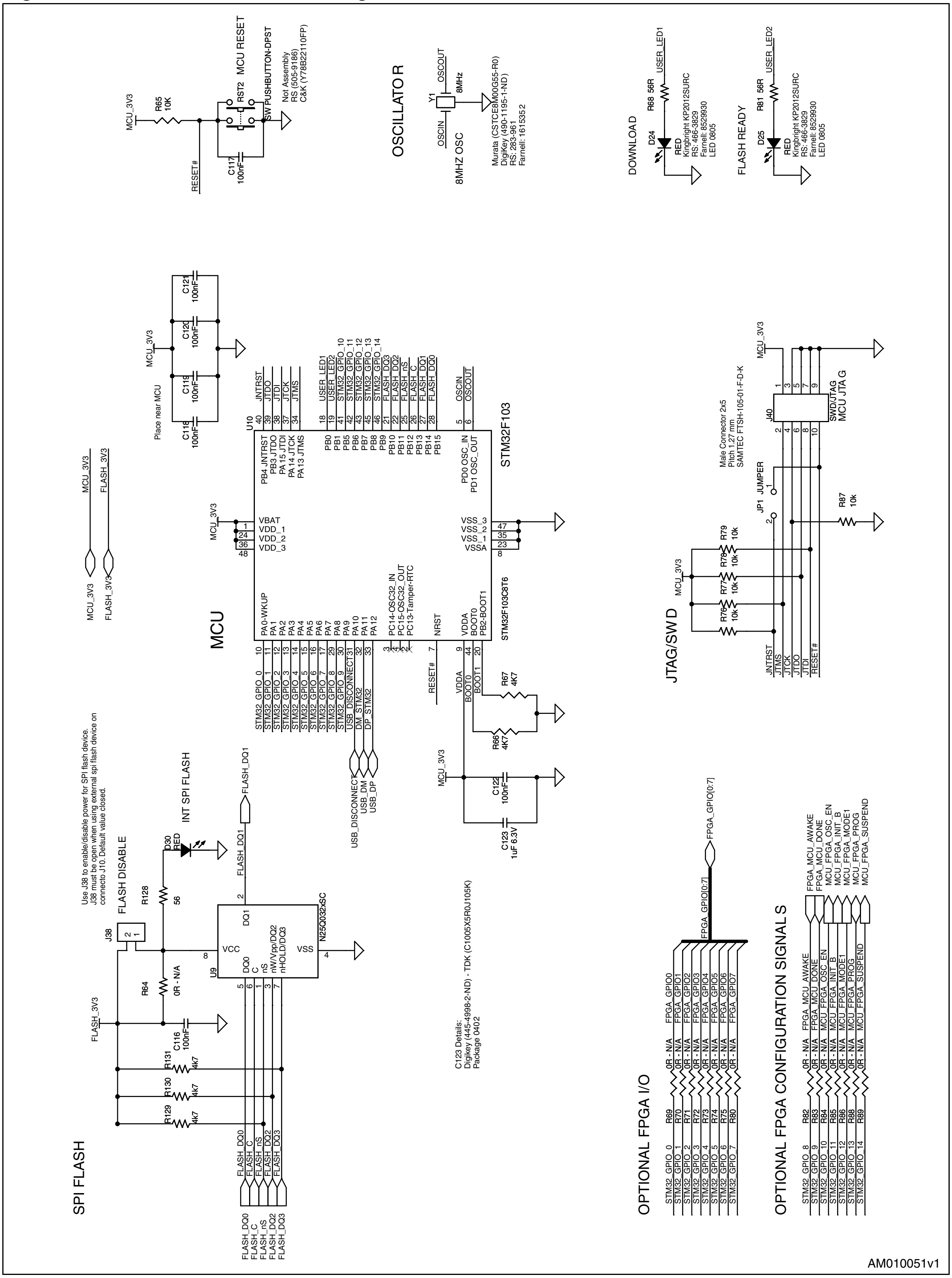


Figure 9. STEVAL-IME003V1 configuration of the STM32



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
11-Aug-2011	1	Initial release.